

37. POWDERY MILDEW OF WALKING FERN (*CAMPTOSORUS RHIZOPHYLLUS*)—A NEW RECORD

Walking ferns are very common in water-fall areas and moist shady areas of Seetham-madhara area of Visakhapatnam, Andhra Pradesh. Powdery mildew fungal occurrence on *Filicineae* is very rare. During our periodic surveys of powdery mildews on flora of Visakhapatnam, we encountered in December 1973 some walking fern plants infected by a powdery mildew. A brief description of the pathogen and the symptoms it causes on the susceptible host fern are described below.

In the early stages of infection, small circular white powdery spots of the fungus appeared on the upper surface of the leaves. With advancement of age, the mildew turned dusty grey. New plants bred from the leaf-tips of walking fern were also infected. The infected leaves turned yellow due to the fungal infection.

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Morphology of the fungus: Mycelium superficial, hyaline, septate, 3.0-4.5 μm wide, attached to the leaves by means of appressoria. Sometimes bulbous haustoria were produced into the host's epidermal cells. Conidiophores were erect, simple, septate, measuring 58-102 \times 10-18 μm and arising vertically and bears chains of conidia. Conidia mature epigenously and are elliptical to cylindrical, 25-36 \times 10-15 μm in size. No cleistothecial formation was observed.

According to Yarwood's key (1973) based on conidial characters, the powdery mildew was identified as *Erysiphe cichoracearum* DC. There was no previous record of powdery mildew infection on walking ferns and this is a new record for India, and *Camptosorus rhizophyllus* is an addition to the host range of *E. cichoracearum* DC.

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REFERENCE

- YARWOOD, C. E. (1973): Pyrenomycetes: Erysiphales in *The Fungi—An Advanced Treatise* vol. IV A (Edited by Ainsworth, G. C., Sparrow, F. K. and Sussman, A. S.). Academic press; New York. pp. 71-86.